IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of
Inventor(s): Mills

Group Art Unit: 1754

App'n Ser. No.: 09/669,877

Examiner(s): Unknown

Filing Date: 09/27/2000

Title: ONE ELECTRON ATOM CATALYSIS, INCREASED BINDING ENERGY COMPOUNDS AND APPLICATIONS THEREOF

* * * * *

October 10, 2003

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Attached are PTO/SB/O8B forms listing the enclosed documents. Copies of the enclosed documents are attached to this Information Disclosure Statement and/or to the Attachments to the Response filed herewith.

Please accept this Information Disclosure Statement under Rule 97(c) and charge the requisite Rule 17(p) fee to our Deposit Account No. 50-0687 under Order No. 27462/**62-226** for which purposes this paper is submitted in duplicate.

Applicant also attaches herewith a complete list of all his articles that have been submitted previously for consideration on PTO/SB/08A and B forms, which listed the dates the journals published the articles. Please note that the document numbers on this list do not correspond to the numbers in other lists submitted previously in other responses. Because of an oversight, Applicant's counsel only recognized recently that

Applicant had posted his articles on the BlackLight's website (www.blacklightpower.com) earlier than the listed publication date and these postings may constitute a publication under the patent laws and rules. If the U.S. Patent Office determines that the postings were publications, Applicant provides herewith on the attached list the internet publication dates for each such article identified as "web publication date."

This information disclosure statement is intended to be in full compliance with the rules, but should the Examiner find any part of its required content to have been omitted, prompt notice that effect is earnestly solicited, along with additional time under Rule 97(f), to enable Applicant to comply fully. Consideration of the foregoing and enclosures plus the return of a copy of the herewith PTO/SB/08A and B forms with the Examiner's initials in the left column per MPEP 609 along with an early action on the merits of this application are earnestly solicited.

Respectfully submitted,
Manelli Denison & Selter PLLC

By

Jeffrey S. Melcher
Reg. No.: 35,950
Tel. No.: (202) 261-1045
Fax. No.: (202) 887-0336

Customer No. 20736

PTO/SB/08B (Modified)

Substitute for form 1449B/PTO				Complete if Known	
				Application Number	09/669,877
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	09/27/2000
				First Named Inventor	Mills
				Group Art Unit	1754
(use as many sheets as necessary)				Examiner Name	Unknown
Sheet	1	of	6	Attorney Docket Number	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	97	R. L. Mills, P. Ray, B. Dhandapani, "Evidence of an Energy Transfer Reaction Between Atomic Hydrogen and Argon II or Helium II as the Source of Excessively Hot H Atoms in RF Plasmas," Contributions to Plasma Physics, submitted. (Web Publication Date: Sept. 26, 2003.) Attachment 97	
	96	J. Phillips, C.K. Chen, R. L. Mills, "Evidence of the Production of Hot Hydrogen Atoms in RF Plasmas by Catalytic Reactions Between Hydrogen and Oxygen Species," J. Phys. D., submitted. (Web Publication Date: Sept. 12, 2003.) Attachment 96	
	95	R. L. Mills, P. Ray, B. Dhandapani, "Excessive Balmer Line Broadening of Water-Vapor Capacitively-Coupled RF Discharge Plasmas" IEEE Transactions on Plasma Science, submitted. (Web Publication Date: Aug. 18, 2003.) Attachment 95	
	94	R. L. Mills, "The Nature of the Chemical Bond Revisited and an Alternative Maxwellian Approach," Il Nuevo Cimento, submitted. (Web Publication Date: Aug. 6, 2003.) Attachment 94	
	93	R. L. Mills, P. Ray, M. Nansteel, J. He, X. Chen, A. Voigt, B. Dhandapani, "Energetic Catalyst-Hydrogen Plasma Reaction Forms a New State of Hydrogen," in preparation. Attachment 93	
	92	R. L. Mills, P. Ray, M. Nansteel, J. He, X. Chen, A. Voigt, B. Dhandapani, Luca Gamberale, "Energetic Catalyst-Hydrogen Plasma Reaction as a Potential New Energy Source," European Physical Journal D, submitted. (*Web Publication Date: June 6, 2003.*) Attachment 92	
	91	R. Mills, P. Ray, "New H I Laser Medium Based on Novel Energetic Plasma of Atomic Hydrogen and Certain Group I Catalysts," J. Plasma Physics, submitted. Attachment 91	
	90	R. L. Mills, P. Ray, M. Nansteel, J. He, X. Chen, A. Voigt, B. Dhandapani, "Energetic Catalyst-Hydrogen Plasma Reaction as a Potential New Energy Source," Am. Chem. Soc. Div. Fuel Chem. Prepr., Vol. 48, No. 2, (2003). Attachment 90	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here is English language Translation is attached.

PTO/SB/08B (Modified)

Substitute for form 1449B/PTO				Complete if Known	
				Application Number	09/669,877
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	09/27/2000
				First Named Inventor	Mills
				Group Art Unit	1754
(use as many sheets as necessary)				Examiner Name	Unknown
Sheet	2	of	6	Attorney Docket Number	

OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	89	R. Mills, P. C. Ray, R. M. Mayo, M. Nansteel, W. Good, P. Jansson, B. Dhandapani, J. He, "Hydrogen Plasmas Generated Using Certain Group I Catalysts Show Stationary Inverted Lyman Populations and Free-Free and Bound-Free Emission of Lower-Energy State Hydride," Technical Physics, submitted. Attachment 89	
	88	R. Mills, J. Sankar, A. Voigt, J. He, P. Ray, B. Dhandapani, "Role of Atomic Hydrogen Density and Energy in Low Power CVD Synthesis of Diamond Films," JACS, in preparation. Attachment 88	
	87	R. Mills, B. Dhandapani, M. Nansteel, J. He, P. Ray, "Liquid-Nitrogen-Condensable Molecular Hydrogen Gas Isolated from a Catalytic Plasma Reaction," J. Phys. Chem. B, submitted. Attachment 87	
	86	R. L. Mills, P. Ray, J. He, B. Dhandapani, M. Nansteel, "Novel Spectral Series from Helium-Hydrogen Evenson Microwave Cavity Plasmas that Matched Fractional-Principal-Quantum-Energy-Level Atomic and Molecular Hydrogen," European Journal of Physics, submitted. (*Web Publication Date: April 24, 2003.*) Attachment 86	
	85	R. L. Mills, P. Ray, R. M. Mayo, "Highly Pumped Inverted Balmer and Lyman Populations," New Journal of Physics, submitted. Attachment 85	
	84	R. L. Mills, P. Ray, J. Dong, M. Nansteel, R. M. Mayo, B. Dhandapani, X. Chen, "Comparison of Balmer α Line Broadening and Power Balances of Helium-Hydrogen Plasma Sources," Plasma Sources Science and Technology, submitted. (*Web Publication Date: March 12, 2003.*) Attachment 84	
	83	R. Mills, P. Ray, M. Nansteel, R. M. Mayo, "Comparison of Water-Plasma Sources of Stationary Inverted Balmer and Lyman Populations for a CW HI Laser," J. Appl. Spectroscopy, in preparation. Attachment 83	
	82	R. Mills, J. Sankar, P. Ray, J. He, A. Voigt, B. Dhandapani, "Synthesis and Characterization of Diamond Films from MPCVD of an Energetic Argon-Hydrogen Plasma and Methane," J. of Materials Research, submitted. (*Web Publication Date: May 7, 2003.*) Attachment 82	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here is English language Translation is attached.

PTO/SB/08B (Modified)

Substitute for form 1449B/PTO				Complete if Known	
				Application Number	09/669,877
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	09/27/2000
				First Named Inventor	Mills
				Group Art Unit	1754
(use as many sheets as necessary)				Examiner Name	Unknown
Sheet	3	of	6	Attorney Docket Number	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	81	R. Mills, P. Ray, B. Dhandapani, W. Good, P. Jansson, M. Nansteel, J. He, A. Voigt, "Spectroscopic and NMR Identification of Novel Hydride Ions in Fractional Quantum Energy States Formed by an Exothermic Reaction of Atomic Hydrogen with Certain Catalysts," European Physical Journal: Applied Physics, submitted. (*Web Publication Date: Feb. 21, 2003.*) Attachment 81	
	80	R. L. Mills, "The Fallacy of Feynman's Argument on the Stability of the Hydrogen Atom According to Quantum Mechanics," Foundations of Phys., submitted. (Web Publication Date: Jan. 27, 2003.) Attachment 80	
	79	R. Mills, J. He, B. Dhandapani, P. Ray, "Comparison of Catalysts and Microwave Plasma Sources of Vibrational Spectral Emission of Fractional-Rydberg-State Hydrogen Molecular Ion," Canadian Journal of Physics, submitted. Attachment 79	
	78	R. L. Mills, P. Ray, J. Dong, M. Nansteel, B. Dhandapani, J. He, "Vibrational Spectral Emission of Fractional-Principal-Quantum-Energy-Level Molecular Hydrogen," Bulletin of the Chemical Society of Japan, submitted. (*Web Publication Date: Sept. 9, 2002.*) Attachment 78	
	77	J. Phillips, R. L. Mills, X. Chen, "Water Bath Calorimetric Study of Excess Heat in 'Resonance Transfer' Plasmas," Journal of Applied Physics, submitted. (*Web Publication Date: June 16, 2003.*) Attachment 77	
	76	R. L. Mills, P. Ray, B. Dhandapani, X. Chen, "Comparison of Catalysts and Microwave Plasma Sources of Spectral Emission of Fractional-Principal-Quantum-Energy-Level Atomic and Molecular Hydrogen," Journal of Applied Spectroscopy, submitted. (*Web Publication Date: Feb. 12, 2002.*) Attachment 76	
	75	R. L. Mills, P. Ray, B. Dhandapani, J. He, "Novel Liquid-Nitrogen-Condensable Molecular Hydrogen Gas," Acta Physica Polonica A, submitted. (*Web Publication Date: Oct. 29, 2002.*) Attachment 75	
	74	R. L. Mills, P. C. Ray, R. M. Mayo, M. Nansteel, B. Dhandapani, J. Phillips, "Spectroscopic Study of Unique Line Broadening and Inversion in Low Pressure Microwave Generated Water Plasmas," Physics of Plasmas, submitted. (*Web Publication Date: June 18, 2003.*) Attachment 74	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here is English language Translation is attached.

PTO/SB/08B (Modified)

Substitute for form 1449B/PTO				Complete if Known	
				Application Number	09/669,877
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	09/27/2000
				First Named Inventor	Mills
				Group Art Unit	1754
(use as many sheets as necessary)				Examiner Name	Unknown
Sheet	4	of	6	Attorney Docket Number	

OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	73	R. L. Mills, P. Ray, B. Dhandapani, J. He, "Energetic Helium-Hydrogen Plasma Reaction," AIAA Journal, submitted. (*Web Publication Date: July 26, 2002.*) Attachment 73	
	72	R. L. Mills, M. Nansteel, P. C. Ray, "Bright Hydrogen-Light and Power Source due to a Resonant Energy Transfer with Strontium and Argon Ions," Vacuum, submitted. Attachment 72	
	71	R. L. Mills, P. Ray, B. Dhandapani, J. Dong, X. Chen, "Power Source Based on Helium-Plasma Catalysis of Atomic Hydrogen to Fractional Rydberg States," Contributions to Plasma Physics, submitted. Attachment 71	
	70	R. Mills, J. He, A. Echezuria, B Dhandapani, P. Ray, "Comparison of Catalysts and Plasma Sources of Vibrational Spectral Emission of Fractional-Rydberg-State Hydrogen Molecular Ion," European Journal of Physics D, submitted. (*Web Publication Date: Sept. 2, 2002.*) Attachment 70	
	69	R. L. Mills, J. Sankar, A. Voigt, J. He, B. Dhandapani, "Spectroscopic Characterization of the Atomic Hydrogen Energies and Densities and Carbon Species During Helium-Hydrogen-Methane Plasma CVD Synthesis of Diamond Films," Chemistry of Materials, Vol. 15, (2003), pp. 1313–1321. (Web Publication Date: Dec. 31, 2002.) Attachment 69	
	68	R. Mills, P. Ray, R. M. Mayo, "Stationary Inverted Balmer and Lyman Populations for a CW HI Water-Plasma Laser," IEEE Transactions on Plasma Science, submitted. (Web Publication Date: Aug. 16, 2002.) Attachment 68	
	67	R. L. Mills, P. Ray, B. Dhandapani, J. He, "Extreme Ultraviolet Spectroscopy of Helium-Hydrogen Plasma," J. Phys. D, Vol. 36, (2003), pp. 1535–1542. (Web Publication Date: July 17, 2002.) Attachment 67	
	66	R. L. Mills, P. Ray, "Spectroscopic Evidence for a Water-Plasma Laser," Europhysics Letters, submitted. (Web Publication Date: Sept. 19, 2002.) Attachment 66	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here is English language Translation is attached.

PTO/SB/08B (Modified)

Substitute for form 1449B/PTO				Complete if Known	
				Application Number	09/669,877
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	09/27/2000
				First Named Inventor	Mills
				Group Art Unit	1754
(use as many sheets as necessary)				Examiner Name	Unknown
Sheet	5	of	6	Attorney Docket Number	

OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	65	R. Mills, P. Ray, R. M. Mayo, "Spectroscopic Evidence for CW H I Lasing in a Water-Plasma," J. of Applied Physics, submitted. (Web Publication Date: Sept. 18, 2002.) Attachment 65	
	64	R. L. Mills, J. Sankar, A. Voigt, J. He, B. Dhandapani, "Low Power MPCVD of Diamond Films on Silicon Substrates," Journal of Vacuum Science & Technology A, submitted. (Web Publication Date: June 26, 2002.) Attachment 64	
	63	R. L. Mills, X. Chen, P. Ray, J. He, B. Dhandapani, "Plasma Power Source Based on a Catalytic Reaction of Atomic Hydrogen Measured by Water Bath Calorimetry," Thermochimica Acta, in press. (Web Publication Date: June 25, 2002.) Attachment 63	
	62	R. L. Mills, A. Voigt, B. Dhandapani, J. He, "Synthesis and Spectroscopic Identification of Lithium Chloro Hydride," Materials Characterization, submitted. Attachment 62	
	61	R. L. Mills, B. Dhandapani, J. He, "Highly Stable Amorphous Silicon Hydride." Solar Energy Materials & Solar Cells, Vol. 80, No. 1, pp. 1-20. *(Web Publication Date: April 15, 2002.)* Attachment 61	
	60	R. L. Mills, J. Sankar, A. Voigt, J. He, B. Dhandapani, "Synthesis of HDLC Films from Solid Carbon," Journal of Material Science, submitted. (Web Publication Date: May 3, 2002.) Attachment 60	
	59	R. Mills, P. Ray, R. M. Mayo, "The Potential for a Hydrogen Water-Plasma Laser," Applied Physics Letters, Vol. 82, No. 11, (2003), pp. 1679–1681. (Web Publication Date: July 11, 2002.) Attachment 59	
	58	R. L. Mills, "Classical Quantum Mechanics," Physics Essays, submitted. (Web Publication Date: May 23, 2002.) Attachment 58	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here is English language Translation is attached.

PTO/SB/08B (Modified)

Substitute for form 1449B/PTO				Complete if Known	
				Application Number	09/669,877
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	09/27/2000
				First Named Inventor	Mills
				Group Art Unit	1754
(use as many sheets as necessary)				Examiner Name	Unknown
Sheet	6	of	6	Attorney Docket Number	

OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	57	R. L. Mills, P. Ray, "Spectroscopic Characterization of Stationary Inverted Lyman Populations and Free-Free and Bound-Free Emission of Lower-Energy State Hydride Ion Formed by a Catalytic Reaction of Atomic Hydrogen and Certain Group I Catalysts, Quantitative Spectroscopy and Radiative Transfer, No. 39, sciencedirect.com, April 17, (2003). Attachment 57	
	56	R. M. Mayo, R. Mills, "Direct Plasmadynamic Conversion of Plasma Thermal Power to Electricity for Microdistributed Power Applications," 40th Annual Power Sources Conference, Cherry Hill, NJ, June 10-13, (2002), pp. 1–4. (Web Publication Date: March 28, 2002.) Attachment 56	
	55	R. Mills, P. Ray, R. M. Mayo, "Chemically-Generated Stationary Inverted Lyman Population for a CW HI Laser," European J of Phys. D, submitted. (Web Publication Date: April 22, 2002.) Attachment 55	
	54	R. L. Mills, P. Ray, "Stationary Inverted Lyman Population Formed from Incandescently Heated Hydrogen Gas with Certain Catalysts," J. Phys. D, Applied Physics, Vol. 36, (2003), pp. 1504–1509. (Web Publication Date: March 20, 2002.) Attachment 54	
	53	R. Mills, "A Maxwellian Approach to Quantum Mechanics Explains the Nature of Free Electrons in Superfluid Helium," Physics of Fluids, submitted. (Web Publication Date: June 4, 2002.) Attachment 53	
	52	R. Mills and M. Nansteel, P. Ray, "Bright Hydrogen-Light Source due to a Resonant Energy Transfer with Strontium and Argon Ions," New Journal of Physics, Vol. 4, (2002), pp. 70.1–70.28. (Web Publication Date: October, 2002, when it became available on the New Journal of Physics website.) Attachment 52	
	51	R. Mills, P. Ray, R. M. Mayo, "CW HI Laser Based on a Stationary Inverted Lyman Population Formed from Incandescently Heated Hydrogen Gas with Certain Group I Catalysts," IEEE Transactions on Plasma Science, Vol. 31, No. 2, (2003), pp. 236–247. (Web Publication Date: Feb. 4, 2002.) Attachment 51	
	50	R. L. Mills, P. Ray, J. Dong, M. Nansteel, B. Dhandapani, J. He, "Spectral Emission of Fractional-Principal-Quantum-Energy-Level Atomic and Molecular Hydrogen," Vibrational Spectroscopy, Vol. 31, No. 2, (2003), pp. 195–213. Attachment 50	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] Applicant is to place a check mark here is English language Translation is attached.

Journal and Recent Book Publications

97. R. L. Mills, P. Ray, B. Dhandapani, "Evidence of an Energy Transfer Reaction Between Atomic Hydrogen and Argon II or Helium II as the Source of Excessively Hot H Atoms in RF Plasmas," Contributions to Plasma Physics, submitted. (*Web Publication Date: Sept. 26, 2003.*)
96. J. Phillips, C.K. Chen, R. L. Mills, "Evidence of the Production of Hot Hydrogen Atoms in RF Plasmas by Catalytic Reactions Between Hydrogen and Oxygen Species," J. Phys. D., submitted. (*Web Publication Date: Sept. 12, 2003.*)
95. R. L. Mills, P. Ray, B. Dhandapani, "Excessive Balmer α Line Broadening of Water-Vapor Capacitively-Coupled RF Discharge Plasmas" IEEE Transactions on Plasma Science, submitted. (*Web Publication Date: Aug. 18, 2003.*)
94. R. L. Mills, "The Nature of the Chemical Bond Revisited and an Alternative Maxwellian Approach," Il Nuevo Cimento, submitted. (*Web Publication Date: Aug. 6, 2003.*)
93. R. L. Mills, P. Ray, M. Nansteel, J. He, X. Chen, A. Voigt, B. Dhandapani, "Energetic Catalyst-Hydrogen Plasma Reaction Forms a New State of Hydrogen," in preparation.
92. R. L. Mills, P. Ray, M. Nansteel, J. He, X. Chen, A. Voigt, B. Dhandapani, Luca Gamberale, "Energetic Catalyst-Hydrogen Plasma Reaction as a Potential New Energy Source," European Physical Journal D, submitted. (*Web Publication Date: June 6, 2003.*)
91. R. Mills, P. Ray, "New H I Laser Medium Based on Novel Energetic Plasma of Atomic Hydrogen and Certain Group I Catalysts," J. Plasma Physics, submitted.
90. R. L. Mills, P. Ray, M. Nansteel, J. He, X. Chen, A. Voigt, B. Dhandapani, "Characterization of Energetic Catalyst-Hydrogen Plasma Reaction as a Potential New Energy Source," Am. Chem. Soc. Div. Fuel Chem. Prepr., Vol. 48, No. 2, (2003).
89. R. Mills, P. C. Ray, R. M. Mayo, M. Nansteel, W. Good, P. Jansson, B. Dhandapani, J. He, "Hydrogen Plasmas Generated Using Certain Group I Catalysts Show Stationary Inverted Lyman Populations and Free-Free and Bound-Free Emission of Lower-Energy State Hydride," Fizika A, submitted.
88. R. Mills, J. Sankar, A. Voigt, J. He, P. Ray, B. Dhandapani, "Role of Atomic Hydrogen Density and Energy in Low Power CVD Synthesis of Diamond Films," JACS, in preparation.
87. R. Mills, B. Dhandapani, M. Nansteel, J. He, P. Ray, "Liquid-Nitrogen-Condensable Molecular Hydrogen Gas Isolated from a Catalytic Plasma Reaction," J. Phys. Chem. B, submitted.
86. R. L. Mills, P. Ray, J. He, B. Dhandapani, M. Nansteel, "Novel Spectral Series from Helium-Hydrogen Evenson Microwave Cavity Plasmas that Matched Fractional-Principal-

Quantum-Energy-Level Atomic and Molecular Hydrogen," European Journal of Physics, submitted. (*Web Publication Date: April 24, 2003.*)

85. R. L. Mills, P. Ray, R. M. Mayo, "Highly Pumped Inverted Balmer and Lyman Populations," New Journal of Physics, submitted.
84. R. L. Mills, P. Ray, J. Dong, M. Nansteel, R. M. Mayo, B. Dhandapani, X. Chen, "Comparison of Balmer α Line Broadening and Power Balances of Helium-Hydrogen Plasma Sources," Jpn. J. Appl., submitted. (*Web Publication Date: March 12, 2003.*)
83. R. Mills, P. Ray, M. Nansteel, R. M. Mayo, "Comparison of Water-Plasma Sources of Stationary Inverted Balmer and Lyman Populations for a CW HI Laser," J. Appl. Spectroscopy, in preparation.
82. R. Mills, J. Sankar, P. Ray, J. He, A. Voigt, B. Dhandapani, "Synthesis and Characterization of Diamond Films from MPCVD of an Energetic Argon-Hydrogen Plasma and Methane," Materials Science, submitted. (*Web Publication Date: May 7, 2003.*)
81. R. Mills, P. Ray, B. Dhandapani, W. Good, P. Jansson, M. Nansteel, J. He, A. Voigt, "Spectroscopic and NMR Identification of Novel Hydride Ions in Fractional Quantum Energy States Formed by an Exothermic Reaction of Atomic Hydrogen with Certain Catalysts," European Physical Journal: Applied Physics, submitted. (*Web Publication Date: Feb. 21, 2003.*)
80. R. L. Mills, "The Fallacy of Feynman's Argument on the Stability of the Hydrogen Atom According to Quantum Mechanics," Foundations of Phys., submitted. (*Web Publication Date: Jan. 27, 2003.*)
79. R. Mills, J. He, B. Dhandapani, P. Ray, "Comparison of Catalysts and Microwave Plasma Sources of Vibrational Spectral Emission of Fractional-Rydberg-State Hydrogen Molecular Ion," Canadian Journal of Physics, submitted.
78. R. L. Mills, P. Ray, X. Chen, B. Dhandapani, "Vibrational Spectral Emission of Fractional-Principal-Quantum-Energy-Level Molecular Hydrogen", J. of the Physical Society of Japan, submitted. (*Web Publication Date: Sept. 9, 2002.*)
77. J. Phillips, R. L. Mills, X. Chen, "Water Bath Calorimetric Study of Excess Heat in 'Resonance Transfer' Plasmas," Journal of Applied Physics, submitted. (*Web Publication Date: June 16, 2003.*)
76. R. L. Mills, P. Ray, B. Dhandapani, X. Chen, "Comparison of Catalysts and Microwave Plasma Sources of Spectral Emission of Fractional-Principal-Quantum-Energy-Level Atomic and Molecular Hydrogen," Journal of Applied Spectroscopy, submitted. (*Web Publication Date: Feb. 12, 2002.*)
75. R. L. Mills, P. Ray, B. Dhandapani, J. He, "Novel Liquid-Nitrogen-Condensable Molecular Hydrogen Gas," Acta Physica Polonica A, submitted. (*Web Publication Date: Oct. 29,*

2002.)

74. R. L. Mills, P. C. Ray, R. M. Mayo, M. Nansteel, B. Dhandapani, J. Phillips, "Spectroscopic Study of Unique Line Broadening and Inversion in Low Pressure Microwave Generated Water Plasmas," Journal of Plasma Physics, submitted. (*Web Publication Date: June 18, 2003.*)
73. R. L. Mills, P. Ray, B. Dhandapani, J. He, "Energetic Helium-Hydrogen Plasma Reaction," AIAA Journal, submitted. (*Web Publication Date: July 26, 2002.*)
72. R. L. Mills, M. Nansteel, P. C. Ray, "Bright Hydrogen-Light and Power Source due to a Resonant Energy Transfer with Strontium and Argon Ions," Vacuum, submitted.
71. R. L. Mills, P. Ray, B. Dhandapani, J. Dong, X. Chen, "Power Source Based on Helium-Plasma Catalysis of Atomic Hydrogen to Fractional Rydberg States," Contributions to Plasma Physics, submitted.
70. R. Mills, J. He, A. Echezuria, B Dhandapani, P. Ray, "Comparison of Catalysts and Plasma Sources of Vibrational Spectral Emission of Fractional-Rydberg-State Hydrogen Molecular Ion," European Journal of Physics D, submitted. (*Web Publication Date: Sept. 2, 2002.*)
69. R. L. Mills, J. Sankar, A. Voigt, J. He, B. Dhandapani, "Spectroscopic Characterization of the Atomic Hydrogen Energies and Densities and Carbon Species During Helium-Hydrogen-Methane Plasma CVD Synthesis of Diamond Films," Chemistry of Materials, Vol. 15, (2003), pp. 1313–1321. (*Web Publication Date: Dec. 31, 2002.*)
68. R. Mills, P. Ray, R. M. Mayo, "Stationary Inverted Balmer and Lyman Populations for a CW HI Water-Plasma Laser," IEEE Transactions on Plasma Science, submitted. (*Web Publication Date: Aug. 16, 2002.*)
67. R. L. Mills, P. Ray, B. Dhandapani, J. He, "Extreme Ultraviolet Spectroscopy of Helium-Hydrogen Plasma," J. Phys. D, Vol. 36, (2003), pp. 1535–1542. (*Web Publication Date: July 17, 2002.*)
66. R. L. Mills, P. Ray, "Spectroscopic Evidence for a Water-Plasma Laser," Europhysics Letters, submitted. (*Web Publication Date: Sept. 19, 2002.*)
65. R. Mills, P. Ray, R. M. Mayo, "Spectroscopic Evidence for CW H I Lasing in a Water-Plasma," J. of Applied Physics, submitted. (*Web Publication Date: Sept. 18, 2002.*)
64. R. L. Mills, J. Sankar, A. Voigt, J. He, B. Dhandapani, "Low Power MPCVD of Diamond Films on Silicon Substrates," Journal of Vacuum Science & Technology A, submitted. (*Web Publication Date: June 26, 2002.*)
63. R. L. Mills, X. Chen, P. Ray, J. He, B. Dhandapani, "Plasma Power Source Based on a Catalytic Reaction of Atomic Hydrogen Measured by Water Bath Calorimetry," Thermochimica Acta, in press. (*Web Publication Date: June 25, 2002.*)
62. R. L. Mills, A. Voigt, B. Dhandapani, J. He, "Synthesis and Spectroscopic Identification of

Lithium Chloro Hydride," Materials Characterization, submitted.

61. R. L. Mills, B. Dhandapani, J. He, "Highly Stable Amorphous Silicon Hydride," Solar Energy Materials & Solar Cells, Vol. 80, No. 1, pp. 1–20. (*Web Publication Date: April 15, 2002.*)
60. R. L. Mills, J. Sankar, A. Voigt, J. He, B. Dhandapani, "Synthesis of HDLC Films from Solid Carbon," Journal of Material Science, submitted. (*Web Publication Date: May 3, 2002.*)
59. R. Mills, P. Ray, R. M. Mayo, "The Potential for a Hydrogen Water-Plasma Laser," Applied Physics Letters, Vol. 82, No. 11, (2003), pp. 1679–1681. (*Web Publication Date: July 11, 2002.*)
58. R. L. Mills, "Classical Quantum Mechanics," Physics Essays, submitted. (*Web Publication Date: May 23, 2002.*)
57. R. L. Mills, P. Ray, "Spectroscopic Characterization of Stationary Inverted Lyman Populations and Free-Free and Bound-Free Emission of Lower-Energy State Hydride Ion Formed by a Catalytic Reaction of Atomic Hydrogen and Certain Group I Catalysts, Quantitative Spectroscopy and Radiative Transfer, No. 39, sciencedirect.com, April 17, (2003).
56. R. M. Mayo, R. Mills, "Direct Plasmadynamic Conversion of Plasma Thermal Power to Electricity for Microdistributed Power Applications," 40th Annual Power Sources Conference, Cherry Hill, NJ, June 10-13, (2002), pp. 1–4. (*Web Publication Date: March 28, 2002.*)
55. R. Mills, P. Ray, R. M. Mayo, "Chemically-Generated Stationary Inverted Lyman Population for a CW HI Laser," European J of Phys. D, submitted. (*Web Publication Date: April 22, 2002.*)
54. R. L. Mills, P. Ray, "Stationary Inverted Lyman Population Formed from Incandescently Heated Hydrogen Gas with Certain Catalysts," J. Phys. D, Applied Physics, Vol. 36, (2003), pp. 1504–1509. (*Web Publication Date: March 20, 2002.*)
53. R. Mills, "A Maxwellian Approach to Quantum Mechanics Explains the Nature of Free Electrons in Superfluid Helium," Physics of Fluids, submitted. (*Web Publication Date: June 4, 2002.*)
52. R. Mills and M. Nansteel, P. Ray, "Bright Hydrogen-Light Source due to a Resonant Energy Transfer with Strontium and Argon Ions," New Journal of Physics, Vol. 4, (2002), pp. 70.1–70.28. (*Web Publication Date: October, 2002, when it became available on the New Journal of Physics website.*)
51. R. Mills, P. Ray, R. M. Mayo, "CW HI Laser Based on a Stationary Inverted Lyman Population Formed from Incandescently Heated Hydrogen Gas with Certain Group I

Catalysts," IEEE Transactions on Plasma Science, Vol. 31, No. 2, (2003), pp. 236–247. (*Web Publication Date: Feb. 4, 2002.*)

50. R. L. Mills, P. Ray, J. Dong, M. Nansteel, B. Dhandapani, J. He, "Spectral Emission of Fractional-Principal-Quantum-Energy-Level Atomic and Molecular Hydrogen," Vibrational Spectroscopy, Vol. 31, No. 2, (2003), pp. 195–213.
49. R. L. Mills, P. Ray, E. Dayalan, B. Dhandapani, J. He, "Comparison of Excessive Balmer α Line Broadening of Inductively and Capacitively Coupled RF, Microwave, and Glow Discharge Hydrogen Plasmas with Certain Catalysts," IEEE Transactions on Plasma Science, Vol. 31, No. 3, (2003), pp. 338–355. (*Web Publication Date: Sept. 17, 2002.*)
48. R. M. Mayo, R. Mills, M. Nansteel, "Direct Plasmadynamic Conversion of Plasma Thermal Power to Electricity," IEEE Transactions on Plasma Science, October, (2002), Vol. 30, No. 5, pp. 2066–2073. (*Web Publication Date: March 26, 2002.*)
47. H. Conrads, R. Mills, Th. Wrubel, "Emission in the Deep Vacuum Ultraviolet from a Plasma Formed by Incandescently Heating Hydrogen Gas with Trace Amounts of Potassium Carbonate," Plasma Sources Science and Technology, Vol 12, (2003), pp. 389–395.
46. R. L. Mills, P. Ray, "Stationary Inverted Lyman Population and a Very Stable Novel Hydride Formed by a Catalytic Reaction of Atomic Hydrogen and Certain Catalysts," Physica B, submitted.
45. R. L. Mills, J. He, P. Ray, B. Dhandapani, X. Chen, "Synthesis and Characterization of a Highly Stable Amorphous Silicon Hydride as the Product of a Catalytic Helium-Hydrogen Plasma Reaction," Int. J. Hydrogen Energy, Vol. 28, No. 12, (2003), pp. 1401–1424. (*Web Publication Date: April 15, 2002.*)
44. R. L. Mills, A. Voigt, B. Dhandapani, J. He, "Synthesis and Characterization of Lithium Chloro Hydride," Int. J. Hydrogen Energy, submitted. (*Web Publication Date: Jan. 7, 2002.*)
43. R. L. Mills, P. Ray, "Substantial Changes in the Characteristics of a Microwave Plasma Due to Combining Argon and Hydrogen," New Journal of Physics, www.njp.org, Vol. 4, (2002), pp. 22.1–22.17. (*Web Publication Date: Dec. 27, 2001.*)
42. R. L. Mills, P. Ray, "A Comprehensive Study of Spectra of the Bound-Free Hyperfine Levels of Novel Hydride Ion $H^-(1/2)$, Hydrogen, Nitrogen, and Air," Int. J. Hydrogen Energy, Vol. 28, No. 8, (2003), pp. 825–871. (*Web Publication Date: Nov. 14, 2001.*)
41. R. L. Mills, E. Dayalan, "Novel Alkali and Alkaline Earth Hydrides for High Voltage and High Energy Density Batteries," Proceedings of the 17th Annual Battery Conference on Applications and Advances, California State University, Long Beach, CA, (January 15-18, 2002), pp. 1–6. (*Web Publication Date: Nov. 9, 2001.*)

40. R. M. Mayo, R. Mills, M. Nansteel, "On the Potential of Direct and MHD Conversion of Power from a Novel Plasma Source to Electricity for Microdistributed Power Applications," IEEE Transactions on Plasma Science, August, (2002), Vol. 30, No. 4, pp. 1568–1578. (*Web Publication Date: Nov. 12, 2001.*)
39. R. Mills, P. C. Ray, R. M. Mayo, M. Nansteel, W. Good, P. Jansson, B. Dhandapani, J. He, "Stationary Inverted Lyman Populations and Free-Free and Bound-Free Emission of Lower-Energy State Hydride Ion Formed by an Exothermic Catalytic Reaction of Atomic Hydrogen and Certain Group I Catalysts," J. Phys. Chem. A, submitted. (*Web Publication Date: Nov. 13, 2001.*)
38. R. Mills, E. Dayalan, P. Ray, B. Dhandapani, J. He, "Highly Stable Novel Inorganic Hydrides from Aqueous Electrolysis and Plasma Electrolysis," Electrochimica Acta, Vol. 47, No. 24, (2002), pp. 3909–3926. (*Web Publication Date: June 13, 2002.*)
37. R. L. Mills, P. Ray, B. Dhandapani, R. M. Mayo, J. He, "Comparison of Excessive Balmer α Line Broadening of Glow Discharge and Microwave Hydrogen Plasmas with Certain Catalysts," J. of Applied Physics, (2002), Vol. 92, No. 12, pp. 7008–7022. (*Web Publication Date: Oct. 9, 2002.*)
36. R. L. Mills, P. Ray, B. Dhandapani, J. He, "Emission Spectroscopic Identification of Fractional Rydberg States of Atomic Hydrogen Formed by a Catalytic Helium-Hydrogen Plasma Reaction," Vacuum, submitted. (*Web Publication Date: Oct. 9, 2001.*)
35. R. L. Mills, P. Ray, B. Dhandapani, M. Nansteel, X. Chen, J. He, "New Power Source from Fractional Rydberg States of Atomic Hydrogen," Current Appl. Phys., submitted. (*Web Publication Date: Oct. 9, 2001.*)
34. R. L. Mills, P. Ray, B. Dhandapani, M. Nansteel, X. Chen, J. He, "Spectroscopic Identification of Transitions of Fractional Rydberg States of Atomic Hydrogen," J. of Quantitative Spectroscopy and Radiative Transfer, in press. (*Web Publication Date: Oct. 9, 2001.*)
33. R. L. Mills, P. Ray, B. Dhandapani, M. Nansteel, X. Chen, J. He, "New Power Source from Fractional Quantum Energy Levels of Atomic Hydrogen that Surpasses Internal Combustion," J Mol. Struct., Vol. 643, No. 1-3, (2002), pp. 43–54. (*Web Publication Date: Oct. 10, 2001.*)
32. R. L. Mills, P. Ray, "Spectroscopic Identification of a Novel Catalytic Reaction of Rubidium Ion with Atomic Hydrogen and the Hydride Ion Product," Int. J. Hydrogen Energy, Vol. 27, No. 9, (2002), pp. 927–935. (*Web Publication Date: Sept. 19, 2001.*)
31. R. Mills, J. Dong, W. Good, P. Ray, J. He, B. Dhandapani, "Measurement of Energy Balances of Noble Gas-Hydrogen Discharge Plasmas Using Calvet Calorimetry," Int. J.

Hydrogen Energy, Vol. 27, No. 9, (2002), pp. 967–978. (*Web Publication Date: Sept. 14, 2001.*)

30. R. L. Mills, A. Voigt, P. Ray, M. Nansteel, B. Dhandapani, "Measurement of Hydrogen Balmer Line Broadening and Thermal Power Balances of Noble Gas-Hydrogen Discharge Plasmas," Int. J. Hydrogen Energy, Vol. 27, No. 6, (2002), pp. 671–685. (*Web Publication Date: Aug. 22, 2001.*)
29. R. Mills, P. Ray, "Vibrational Spectral Emission of Fractional-Principal-Quantum-Energy-Level Hydrogen Molecular Ion," Int. J. Hydrogen Energy, Vol. 27, No. 5, (2002), pp. 533–564. (*Web Publication Date: July 19, 2001.*)
28. R. Mills, P. Ray, "Spectral Emission of Fractional Quantum Energy Levels of Atomic Hydrogen from a Helium-Hydrogen Plasma and the Implications for Dark Matter," Int. J. Hydrogen Energy, (2002), Vol. 27, No. 3, pp. 301–322. (*Web Publication Date: Aug. 1, 2001.*)
27. R. Mills, P. Ray, "Spectroscopic Identification of a Novel Catalytic Reaction of Potassium and Atomic Hydrogen and the Hydride Ion Product," Int. J. Hydrogen Energy, Vol. 27, No. 2, (2002), pp. 183–192. (*Web Publication Date: Jan. 11, 2002.*)
26. R. Mills, "BlackLight Power Technology-A New Clean Hydrogen Energy Source with the Potential for Direct Conversion to Electricity," Proceedings of the National Hydrogen Association, 12 th Annual U.S. Hydrogen Meeting and Exposition, *Hydrogen: The Common Thread*, The Washington Hilton and Towers, Washington DC, (March 6-8, 2001), pp. 671–697. (*Presented at the conference on March 7, 2001; Web Publication Date: April 20, 2001.*)
25. R. Mills, W. Good, A. Voigt, Jinquan Dong, "Minimum Heat of Formation of Potassium Iodo Hydride," Int. J. Hydrogen Energy, Vol. 26, No. 11, (2001), pp. 1199–1208. (*Web Publication Date: March 23, 2001.*)
24. R. Mills, "Spectroscopic Identification of a Novel Catalytic Reaction of Atomic Hydrogen and the Hydride Ion Product," Int. J. Hydrogen Energy, Vol. 26, No. 10, (2001), pp. 1041–1058. (*Web Publication Date: March 23, 2001.*)
23. R. Mills, N. Greenig, S. Hicks, "Optically Measured Power Balances of Glow Discharges of Mixtures of Argon, Hydrogen, and Potassium, Rubidium, Cesium, or Strontium Vapor," Int. J. Hydrogen Energy, Vol. 27, No. 6, (2002), pp. 651–670. (*Web Publication Date: July 20, 2001.*)
22. R. Mills, "The Grand Unified Theory of Classical Quantum Mechanics," Global Foundation, Inc. Orbis Scientiae entitled *The Role of Attractive and Repulsive Gravitational Forces in Cosmic Acceleration of Particles The Origin of the Cosmic Gamma Ray Bursts*, (29th Conference on High Energy Physics and Cosmology Since 1964)

Dr. Behram N. Kursunoglu, Chairman, December 14-17, 2000, Lago Mar Resort, Fort Lauderdale, FL, Kluwer Academic/Plenum Publishers, New York, pp. 243–258. (*Presented at the conference on Dec. 15, 2000; Web Publication Date: May 17, 2001.*)

21. R. Mills, "The Grand Unified Theory of Classical Quantum Mechanics," Int. J. Hydrogen Energy, Vol. 27, No. 5, (2002), pp. 565–590. (*Web Publication Date: Sept. 17, 2001.*)
20. R. Mills and M. Nansteel, P. Ray, "Argon-Hydrogen-Strontium Discharge Light Source," IEEE Transactions on Plasma Science, Vol. 30, No. 2, (2002), pp. 639–653. (*Web Publication Date: Dec. 7, 2000.*)
19. R. Mills, B. Dhandapani, M. Nansteel, J. He, A. Voigt, "Identification of Compounds Containing Novel Hydride Ions by Nuclear Magnetic Resonance Spectroscopy," Int. J. Hydrogen Energy, Vol. 26, No. 9, (2001), pp. 965–979. (*Web Publication Date: March 22, 2001.*)
18. R. Mills, "BlackLight Power Technology-A New Clean Energy Source with the Potential for Direct Conversion to Electricity," Global Foundation International Conference on "Global Warming and Energy Policy," Dr. Behram N. Kursunoglu, Chairman, Fort Lauderdale, FL, November 26-28, 2000, Kluwer Academic/Plenum Publishers, New York, pp. 187–202. (*Presented at the conference on Nov. 26, 2000; Web Publication Date: Jan. 19, 2001.*)
17. R. Mills, "The Nature of Free Electrons in Superfluid Helium—a Test of Quantum Mechanics and a Basis to Review its Foundations and Make a Comparison to Classical Theory," Int. J. Hydrogen Energy, Vol. 26, No. 10, (2001), pp. 1059–1096. (*Web Publication Date: Dec. 11, 2000.*)
16. R. Mills, M. Nansteel, and Y. Lu, "Excessively Bright Hydrogen-Strontium Plasma Light Source Due to Energy Resonance of Strontium with Hydrogen," J. of Plasma Physics, Vol. 69, (2003), pp. 131–158. (*Web Publication Date: Aug. 27, 2001.*)
15. R. Mills, J. Dong, Y. Lu, "Observation of Extreme Ultraviolet Hydrogen Emission from Incandescently Heated Hydrogen Gas with Certain Catalysts," Int. J. Hydrogen Energy, Vol. 25, (2000), pp. 919–943. (*Web Publication Date: June 27, 2000.*)
14. R. Mills, "Observation of Extreme Ultraviolet Emission from Hydrogen-KI Plasmas Produced by a Hollow Cathode Discharge," Int. J. Hydrogen Energy, Vol. 26, No. 6, (2001), pp. 579–592. (*Web Publication Date: July 10, 2000.*)
13. R. Mills, "Temporal Behavior of Light-Emission in the Visible Spectral Range from a Ti-K2CO3-H-Cell," Int. J. Hydrogen Energy, Vol. 26, No. 4, (2001), pp. 327–332. (*Web Publication Date: July 10, 2000.*)
12. R. Mills, T. Onuma, and Y. Lu, "Formation of a Hydrogen Plasma from an Incandescently Heated Hydrogen-Catalyst Gas Mixture with an Anomalous Afterglow Duration," Int. J.

Hydrogen Energy, Vol. 26, No. 7, July, (2001), pp. 749–762. (*Web Publication Date: June 28, 2000.*)

11. R. Mills, M. Nansteel, and Y. Lu, "Observation of Extreme Ultraviolet Hydrogen Emission from Incandescently Heated Hydrogen Gas with Strontium that Produced an Anomalous Optically Measured Power Balance," Int. J. Hydrogen Energy, Vol. 26, No. 4, (2001), pp. 309–326. (*Web Publication Date: June 27, 2000.*)
10. R. Mills, B. Dhandapani, N. Greenig, J. He, "Synthesis and Characterization of Potassium Iodo Hydride," Int. J. of Hydrogen Energy, Vol. 25, Issue 12, December, (2000), pp. 1185–1203. (*Web Publication Date: Nov. 12, 2001.*)
9. R. Mills, "Novel Inorganic Hydride," Int. J. of Hydrogen Energy, Vol. 25, (2000), pp. 669–683. (*Web Publication Date: June 28, 2000.*)
8. R. Mills, B. Dhandapani, M. Nansteel, J. He, T. Shannon, A. Echezuria, "Synthesis and Characterization of Novel Hydride Compounds," Int. J. of Hydrogen Energy, Vol. 26, No. 4, (2001), pp. 339–367. (*Web Publication Date: June 13, 2001.*)
7. R. Mills, "Highly Stable Novel Inorganic Hydrides," Journal of New Materials for Electrochemical Systems, Vol. 6, (2003), pp. 45–54. (*Web Publication Date: Nov. 20, 2001.*)
6. R. Mills, "Novel Hydrogen Compounds from a Potassium Carbonate Electrolytic Cell," Fusion Technology, Vol. 37, No. 2, March, (2000), pp. 157–182. (*Web Publication Date: June 26, 2000.*)
5. R. Mills, "The Hydrogen Atom Revisited," Int. J. of Hydrogen Energy, Vol. 25, Issue 12, December, (2000), pp. 1171–1183. (*Web Publication Date: June 27, 2000.*)
4. Mills, R., Good, W., "Fractional Quantum Energy Levels of Hydrogen," Fusion Technology, Vol. 28, No. 4, November, (1995), pp. 1697–1719. (*Web Publication Date: Nov. 1, 2001.*)
3. Mills, R., Good, W., Shaubach, R., "Dihydrino Molecule Identification," Fusion Technology, Vol. 25, 103 (1994). (*Web Publication Date: April 11, 2001.*)
2. R. Mills and S. Kneizys, Fusion Technol. Vol. 20, 65 (1991). (*Web Publication Date: April 11, 2001.*)
1. R. Mills, *The Grand Unified Theory of Classical Quantum Mechanics*, September 2001 Edition, BlackLight Power, Inc., Cranbury, New Jersey, Distributed by Amazon.com; July 2003 Edition posted at www.blacklightpower.com.

Book Publications

8. R. Mills, *The Grand Unified Theory of Classical Quantum Mechanics*, January 2003 Edition, BlackLight Power, Inc., Cranbury, New Jersey, posted at

www.blacklightpower.com.
7. R. Mills, *The Grand Unified Theory of Classical Quantum Mechanics*, September 2001 Edition, BlackLight Power, Inc., Cranbury, New Jersey, Distributed by Amazon.com.
6. R. Mills, *The Grand Unified Theory of Classical Quantum Mechanics*, January 2000 Edition, BlackLight Power, Inc., Cranbury, New Jersey
5. R. Mills, *The Grand Unified Theory of Classical Quantum Mechanics*, January 1999 Edition.
4. R. Mills, *The Grand Unified Theory of Classical Quantum Mechanics*, September 1996 Edition.
3. R. Mills, *The Grand Unified Theory of Classical Quantum Mechanics*, (1995), Technomic Publishing Company, Lancaster, PA provided by HydroCatalysis Power Corporation, Great Valley Corporate Center, 41 Great Valley Parkway, Malvern, PA 19355
2. R. Mills, *The Unification of Spacetime, the Forces, Matter, and Energy*, Technomic Publishing Company, Lancaster, PA, (1992).
1. R. Mills, J. Farrell, *The Grand Unified Theory*, Science Press, Ephrata, PA, (1990).

Correspondence

5. R. Mills, "One Dimension Gravity Well—A Flawed Interpretation," response to V. V. Nesvizhevsky , Scientific American, submitted.
4. R. Mills, Response to W. Seifritz, Int J of Hydrogen Energy, Vol. 28, No. 3, (2003), pp. 359-360.
3. R. Mills, Response to T. Ohta, Int J of Hydrogen Energy, Vol. 26, No. 11, (2001), pp. 1225.
2. R. Mills, Response to I Shechtman, Int J of Hydrogen Energy, Vol. 26, No. 11, (2001), pp. 1229–1231.
1. R. Mills, Response to A, K. Vijh, Int J of Hydrogen Energy, Vol. 26, No. 11, (2001), pp. 1233.

Test Reports

Numerous test reports are available from BlackLight Power (e.g. Haldeman, C. W., Savoye, G. W., Iseler, G. W., Clark, H. R., MIT Lincoln Laboratories Excess Energy Cell Final report ACC Project 174 (3), April 25, 1995; Peterson, S., H., Evaluation of Heat Production from Light Water Electrolysis Cells of HydroCatalysis Power Corporation, Report from Westinghouse STC, 1310 Beulah Road, Pittsburgh, PA, February 25, 1994; Craw-Ivanco, M. T.; Tremblay, R. P.; Boniface, H. A.; Hilborn, J. W.; "Calorimetry for a Ni/K_2CO_3

Cell," Atomic Energy Canada Limited, Chemical Engineering Branch, Chalk River Laboratories, Chalk River, Ontario, June 1994; Nesterov, S. B., Kryukov, A. P., Moscow Power Engineering Institute Affidavit, February, 26,1993; Jacox, M. G., Watts, G. R., "The Search for Excess Heat in the Mills Electrolytic Cell," Idaho National Engineering Laboratory, EG&G Idaho, Inc., Idaho Falls, Idaho, 83415, January 7, 1993; Gernert, N., Shaubach, R. M., Mills, R., Good, W., "Nascent Hydrogen: An Energy Source," Final Report prepared by Thermacore, Inc., for the Aero Propulsion and Power Directorate, Wright Laboratory, Air Force Material Command (ASC), Wright-Patterson Air Force Base, Contract Number F33615-93-C-2326, May, (1994); Phillips, J., Smith, J., Kurtz, S., "Report On Calorimetric Investigations Of Gas-Phase Catalyzed Hydrino Formation" Final report for Period October-December 1996," January 1, 1997, A Confidential Report submitted to BlackLight Power, Inc. provided by BlackLight Power, Inc., Great Valley Corporate Center, 41 Great Valley Parkway, Malvern, PA 19355; B. N. Popov, "Electrochemical Characterization of BlackLight Power, Inc. MH as Electrodes for Li-ion Batteries, Dept. of Chemical Engineering, University of South Carolina, February 6, 2000; Scores of Independent Tests of BlackLight Power's Novel Hydride Compounds from over 20 Independent Testing Laboratories.)

Prior Conference Presentations

50. R. L. Mills, P. Ray, M. Nansteel, J. He, X. Chen, A. Voigt, B. Dhandapani, "Energetic Catalyst-Hydrogen Plasma Reaction as a Potential New Energy Source," (Division of Industrial and Engineering Chemistry Symposium), September 9, 2003, 226th American Chemical Society National Meeting, (Sept. 7–11, 2003), New York, NY.
49. B. Dhandapani, R. Mills, "Novel Liquid-Nitrogen-Condensable Molecular Hydrogen Gas" (Physical Chemistry Session), June 11, 2003, 36th Middle Atlantic Regional Meeting of American Chemical Society, (June 8–11, 2003), Princeton University, Princeton, NJ.
48. P. Ray, R. Mills, "Extreme Ultraviolet Spectroscopy of Helium-Hydrogen Plasma" (Physical Chemistry Session), June 11, 2003, 36th Middle Atlantic Regional Meeting of American Chemical Society, (June 8–11, 2003), Princeton University, Princeton, NJ.
47. R. Mills, "Novel Catalytic Reaction Of Hydrogen as a Potential New Energy Source" (Catalysis Session), June 10, 2003, 36th Middle Atlantic Regional Meeting of American Chemical Society, (June 8–11, 2003), Princeton University, Princeton, NJ.
46. J. He, R. Mills, "TOF-SIMS and XPS Studies of Highly Stable Silicon Hydride Films" (Inorganic/Solid State Session), June 9, 2003, 36th Middle Atlantic Regional Meeting of

American Chemical Society, (June 8–11, 2003), Princeton University, Princeton, NJ.

45. B. Dhandapani, R. Mills, "Low Power MPCVD Synthesis and Characterization of Diamond Films on Silicon Substrates" (Inorganic/Solid State Session), June 9, 2003, 36th Middle Atlantic Regional Meeting of American Chemical Society, (June 8–11, 2003), Princeton University, Princeton, NJ.
44. X. Chen, R. Mills, "Calorimetric Study of Heat Generation by Catalytic Reaction of Atomic Hydrogen in Resonant Transfer Plasmas" (Fuel Cells Session), June 9, 2003, 36th Middle Atlantic Regional Meeting of American Chemical Society, (June 8–11, 2003), Princeton University, Princeton, NJ.
43. R. L. Mills, "Novel Catalytic Reaction of Hydrogen as a Potential New Energy Source", Division of Industrial and Engineering Chemistry, "Green Chemistry in the Design of Alternative Energy Strategies", symposium, Oral Presentation, 225th ACS National Meeting, (March 23-27, 2003), New Orleans, LA.
42. R. L. Mills, "Novel Catalytic Reaction of Hydrogen as a Potential New Energy Source," Monday, November 25, Room 216, Protocol Center, TA-3, Los Alamos National Laboratory.
41. R. L. Mills, "Classical Quantum Mechanics," Monday, November 25, Room 216, Protocol Center, TA-3, Los Alamos National Laboratory.
40. R. L. Mills, Seminar: "Novel Catalytic Reaction of Hydrogen as a Potential New Energy Source," US Environmental Protection Agency, National Risk Management Research Laboratory, Sustainable Technologies Division, Cincinnati, OH, October 24, 2002.
39. R. L. Mills, J. Dong, J. He, B. Dhandapani, A. Voigt, M. Nansteel, J. Sankar, R. M. Mayo, P. Ray, "Novel Catalytic Reaction of Hydrogen as a Potential New Energy Source," Division of Inorganic Chemistry, Oral Presentation, 224rd ACS National Meeting, (August 18-22, 2002), Boston, MA (Aug. 22, 4:10-4:30 PM).
38. R. L. Mills, J. Dong, J. He, B. Dhandapani, A. Voigt, M. Nansteel, J. Sankar, R. M. Mayo, P. Ray, "Novel Catalytic Reaction of Hydrogen as a Potential New Energy Source," Division of Colloidal and Surface Chemistry, Oral Presentation, 224rd ACS National Meeting, (August 18-22, 2002), Boston, MA (Aug. 22, 8:30-8:50 AM).
37. P. Ray, R. Mills, "Spectroscopic Characterization of Stationary Inverted Balmer and Lyman Populations Formed by a Catalytic Reaction of Atomic Hydrogen with Oxygen and with Certain Group I Catalysts," Eighteenth International Conference on Atomic Physics, July 28-August 2, 2002, Cambridge, Massachusetts.
36. R. M. Mayo, R. L. Mills, M. Nansteel, "Direct Plasmadynamic Conversion of Plasma Thermal Power from a Novel Plasma Source to Electricity for Microdistributed Power Applications," 40th Power Sources Conference, (June 6–13, 2002), Cherry Hill, NJ.

35. R. L. Mills, J. Dong, J. He, B. Dhandapani, W. Good, A. Voigt, S. Hicks, M. Nansteel, E. Dayalan, P. Ray, "Spectroscopic Identification of a Novel Catalytic Reaction of Hydrogen," Division of Inorganic Chemistry, Oral Presentation, 223rd ACS National Meeting, (April 7–11, 2002), Orlando, FL.
34. R. L. Mills, J. Dong, J. He, B. Dhandapani, W. Good, A. Voigt, S. Hicks, M. Nansteel, E. Dayalan, P. Ray, "Novel Catalytic Reaction of Hydrogen as a Potential New Energy Source," Division of Inorganic Chemistry, Oral Presentation, 223rd ACS National Meeting, (April 7–11, 2002), Orlando, FL.
33. R. L. Mills, J. Dong, J. He, B. Dhandapani, W. Good, A. Voigt, S. Hicks, M. Nansteel, E. Dayalan, P. Ray, "Novel Catalytic Reaction of Hydrogen as a Potential New Energy Source," Division of Industrial and Engineering Chemistry, Oral Presentation, 223rd ACS National Meeting, (April 7–11, 2002), Orlando, FL.
32. R. L. Mills, J. Dong, J. He, B. Dhandapani, W. Good, A. Voigt, S. Hicks, M. Nansteel, E. Dayalan, P. Ray, "Novel Catalytic Reaction of Hydrogen as a Potential New Energy Source," Catalysis and Surface Science Secretariat, Oral Presentation, 223rd ACS National Meeting, (April 7–11, 2002), Orlando, FL.
31. R. L. Mills, J. Dong, J. He, B. Dhandapani, W. Good, A. Voigt, S. Hicks, M. Nansteel, E. Dayalan, P. Ray, "Novel Catalytic Reaction of Hydrogen as a Potential New Energy Source," Division of Physical Chemistry, Poster Presentation, 223rd ACS National Meeting, (April 7–11, 2002), Orlando, FL.
30. R. L. Mills, J. Dong, J. He, B. Dhandapani, W. Good, A. Voigt, S. Hicks, M. Nansteel, E. Dayalan, P. Ray, "Novel Catalytic Reaction of Hydrogen as a Potential New Energy Source," Division of Physical Chemistry, Sci-Mix Poster Presentation, 223rd ACS National Meeting, (April 7–11, 2002), Orlando, FL.
29. R. Mills, "BlackLight Power Technology-A New Clean Energy Source with the Potential for Direct Conversion to Electricity," *The 8 th Annual Emerald Groundhog Day Investment Forum*, February 5, 2002, Wyndham Franklin Plaza Hotel, Philadelphia, PA, Organized by Emerald Asset Management, Lancaster, PA.
28. R. L. Mills, E. Dayalan, "Novel Alkali and Alkaline Earth Hydrides for High Voltage and High Energy Density Batteries," Proceedings of the 17th Annual Battery Conference on Applications and Advances, California State University, Long Beach, CA, (January 15-18, 2002), pp. 1-6.
27. P. Ray, R. Mills, "Spectroscopic identification of a novel catalytic reaction of hydrogen plasma," Session ET1: Lighting, American Physical Society Meeting, 54th Annual Gaseous Electronics Conference, October 9–12, 2001, Pennsylvania State University, State College, PA.

26. R. Mills, "Novel catalytic reaction of hydrogen as a potential new energy source," Division of Industrial and Engineering Chemistry; Session: Industrial Bio-Based Technology, 222nd American Chemical Society Fall National Meeting, (August 26–30, 2001), Chicago, IL.
25. R. Mills, "Spectroscopic identification of a novel catalytic reaction of hydrogen," Division of Inorganic Chemistry; Session: Catalysis, 222nd American Chemical Society Fall National Meeting, (August 26–30, 2001), Chicago, IL.
24. R. Mills, "Spectroscopic identification of a novel catalytic reaction of hydrogen," Division of Physical Chemistry; Session: Physical Chemistry Poster Session, 222nd American Chemical Society Fall National Meeting, (August 26–30, 2001), Chicago, IL.
23. R. Mills, J. He, "Spectroscopic Identification of a Novel Catalytic Reaction of Atomic Hydrogen and the Hydride Ion Product," National Hydrogen Association, 12 th Annual U.S. Hydrogen Meeting and Exposition, *Hydrogen: The Common Thread*, The Washington Hilton and Towers, Washington DC, (March 6-8, 2001).
22. R. Mills, B. Dhandapani, M. Nansteel, N. Greenig, S. Hicks, J. Dong, "Optically Measured Power Balances of Anomalous Discharges of Mixtures of Argon, Hydrogen, and Potassium, Rubidium, Cesium, or Strontium Vapor," National Hydrogen Association, 12 th Annual U.S. Hydrogen Meeting and Exposition, *Hydrogen: The Common Thread*, The Washington Hilton and Towers, Washington DC, (March 6-8, 2001).
21. R. Mills, M. Nansteel, N. Greenig, S. Hicks, "BlackLight Power Technology-A New Clean Energy Source with the Potential for Direct Conversion to Electricity," National Hydrogen Association, 12 th Annual U.S. Hydrogen Meeting and Exposition, *Hydrogen: The Common Thread*, The Washington Hilton and Towers, Washington DC, (March 6-8, 2001).
20. R. Mills, B. Dhandapani, M. Nansteel, J. He, A. Voigt, "Identification of Compounds Containing Novel Hydride Ions by Nuclear Magnetic Resonance Spectroscopy," National Hydrogen Association, 12 th Annual U.S. Hydrogen Meeting and Exposition, *Hydrogen: The Common Thread*, The Washington Hilton and Towers, Washington DC, (March 6-8, 2001).
19. R. Mills, "BlackLight Power Technology-A New Clean Energy Source with the Potential for Direct Conversion to Electricity," *The 8 th Annual Emerald Groundhog Day Investment Forum*, February 1, 2001, Wyndham Franklin Plaza Hotel, Philadelphia, PA, Organized by Emerald Asset Management, Lancaster, PA.
18. R. Mills, "The Grand Unified Theory of Classical Quantum Mechanics," Global Foundation, Inc. Orbis Scientiae entitled *The Role of Attractive and Repulsive Gravitational Forces in Cosmic Acceleration of Particles The Origin of the Cosmic Gamma Ray Bursts*, (29th Conference on High Energy Physics and Cosmology Since 1964) Dr. Behram N. Kursunoglu, Chairman, December 14-17, 2000, Lago Mar Resort, Fort

Lauderdale, FL.

17. R. Mills, "BlackLight Power Technology-A New Clean Energy Source with the Potential for Direct Conversion to Electricity," Global Foundation, Inc. conference entitled *Global Warming and Energy Policy*, Fort Lauderdale, FL, November 26-28, 2000.
16. R. Mills, B. Dhandapani, N. Greenig, J. He, J. Dong, Y. Lu, and H. Conrads, "Formation of an Energetic Plasma and Novel Hydrides from Incandescently Heated Hydrogen Gas with Certain Catalysts," August National ACS Meeting (220th ACS National Meeting, Washington, DC, (August 20-24, 2000)).
15. R. Mills, J. He, and B. Dhandapani, "Novel Alkali and Alkaline Earth Hydrides," August National ACS Meeting (220th ACS National Meeting, Washington, DC, (August 20-24, 2000)).
14. R. Mills, B. Dhandapani, N. Greenig, J. He, J. Dong, Y. Lu, and H. Conrads, "Formation of an Energetic Plasma and Novel Hydrides from Incandescently Heated Hydrogen Gas with Certain Catalysts," June ACS Meeting (29th Northeast Regional Meeting, University of Connecticut, Storrs, CT, (June 18-21, 2000)).
13. Mills, J. Dong, N. Greenig, and Y. Lu, "Observation of Extreme Ultraviolet Hydrogen Emission from Incandescently Heated Hydrogen Gas with Certain Catalysts," 219 th National ACS Meeting, San Francisco, California, (March 26-30, 2000).
12. R. Mills, B. Dhandapani, N. Greenig, J. He, J. Dong, Y. Lu, and H. Conrads, "Formation of an Energetic Plasma and Novel Hydrides from Incandescently Heated Hydrogen Gas with Certain Catalysts," 219 th National ACS Meeting, San Francisco, California, (March 26-30, 2000).
11. R. Mills, "Novel Hydride Compound," 219 th National ACS Meeting, San Francisco, California, (March 26-30, 2000).
10. R. Mills, J. He, and B. Dhandapani, "Novel Alkali and Alkaline Earth Hydrides," 219 th National ACS Meeting, San Francisco, California, (March 26-30, 2000).
9. R. Mills, J. Dong, N. Greenig, and Y. Lu, "Observation of Extreme Ultraviolet Hydrogen Emission from Incandescently Heated Hydrogen Gas with Certain Catalysts," National Hydrogen Association, 11 th Annual U.S. Hydrogen Meeting, Vienna, VA, (February 29-March 2, 2000).
8. R. Mills, B. Dhandapani, N. Greenig, J. He, J. Dong, Y. Lu, and H. Conrads, "Formation of an Energetic Plasma and Novel Hydrides from Incandescently Heated Hydrogen Gas with Certain Catalysts," National Hydrogen Association, 11 th Annual U.S. Hydrogen Meeting, Vienna, VA, (February 29-March 2, 2000).
7. R. Mills, "Novel Hydride Compound," National Hydrogen Association, 11 th Annual U.S. Hydrogen Meeting, Vienna, VA, (February 29-March 2, 2000).

6. R. Mills, J. He, and B. Dhandapani, "Novel Alkali and Alkaline Earth Hydrides," National Hydrogen Association, 11 th Annual U.S. Hydrogen Meeting, Vienna, VA, (February 29-March 2, 2000).
5. R. Mills, J. Dong, Y. Lu, J. Conrads, "Observation of Extreme Ultraviolet Hydrogen Emission from Incandescently Heated Hydrogen Gas with Certain Catalysts," 1999 Pacific Conference on Chemistry and Spectroscopy and the 35th ACS Western Regional Meeting, Ontario Convention Center, California, (October 6-8, 1999).
4. R. Mills, "Novel Hydride Compound," 1999 Pacific Conference on Chemistry and Spectroscopy and the 35th ACS Western Regional Meeting, Ontario Convention Center, California, (October 6-8, 1999).
3. R. Mills, B, Dhandapani, N. Greenig, J. He, "Synthesis and Characterization of Potassium Iodo Hydride," 1999 Pacific Conference on Chemistry and Spectroscopy and the 35th ACS Western Regional Meeting, Ontario Convention Center, California, (October 6-8, 1999).
2. R. Mills, J. He, and B. Dhandapani, "Novel Hydrogen Compounds," 1999 Pacific Conference on Chemistry and Spectroscopy and the 35th ACS Western Regional Meeting, Ontario Convention Center, California, (October 6-8, 1999).
1. R. Mills, "Excess Heat Production by the Electrolysis of an Aqueous Potassium Carbonate Electrolyte," August 1991 meeting of the American Chemical Society, NY, NY.